

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G10.205.3
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AT&T Co Standard

PRECAUTIONS
UNDERGROUND AND BURIED WORK

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1. GENERAL

1.01 This section replaces Issue 1 of Section G10.205.3. It has been reissued to further restrict the use of open flames at manholes. ↙ ↘

2. BURIED AND SUBSURFACE WORK

2.01 Buried cable placing frequently involves the use of heavy equipment not normally used in other phases of telephone work. Work operations should be conducted in accordance with standard practices covering this type of work and in such a manner as to minimize the accident hazard to both employees and the public.

2.02 All open manholes, trenches, excavations, holes, etc., shall be protected with guards, barricades, covers, flags or other suitable warning devices at all times as covered in other practices in the G10. series. Where traffic conditions warrant, it is preferable to provide more protection than may appear necessary rather than to underprotect.

2.03 Prior to commencing digging operations, determine the location or route of foreign underground plant in the immediate vicinity or along the route of work. Make every effort to avoid exposing or making contact with underground plant belonging to other utilities, municipalities, etc.

2.04 When foreign objects are encountered while plowing or digging, they should be exposed and investigated with caution. Do not cut, chop through or break off underground

obstructions without first determining if they serve a useful purpose. Under no circumstances should underground electric light or power plant be disturbed.

2.05 The use of shoring is advisable in all extensive excavations when there is any doubt regarding the stability or holding quality of the walls.

3. UNDERGROUND WORK

3.01 Manholes shall be tested for the presence of combustible gases and carbon monoxide prior to entrance. Oxygen deficiency tests must be made if conditions indicate that a deficiency of oxygen in the manhole atmosphere may exist. Detailed instructions regarding the methods of testing manhole atmosphere are contained in other sections of the Practices. Manholes with contaminated atmosphere or oxygen deficiency must be ventilated as recommended in other sections of the Practices. When a protective covering, such as a tarpaulin, tent, etc., is required to permit work in manholes, test to make sure that conditions are safe and, if necessary, ventilate in an approved manner.

3.02 Exercise caution when entering and leaving manholes particularly those located on travelled thoroughfares. Always use a ladder when entering or leaving manholes. Keep hands free of materials or tools when ascending or descending ladders.

3.03 **Flames shall not be used in or near manholes. Furnaces, kerosene lanterns, and other open flames shall be kept at least 10 feet from the manhole opening.**

3.04 Use standard platform supports and planks or approved substitutes for erecting working platforms in manholes. Platform planks should have adequate strength to support all loads to which they may be subjected, including the extreme loads incurred during cable bending and racking operations.

3.05 In so far as practicable, employees should not remain in manholes during cable placing and removal operations when the pulling equipment is in operation. However, if it is necessary to stay in a manhole during certain work operations, the employee should stand well clear of the pulling equipment under tension and outside the angle formed by the pulling line. Provide adequate warning devices to safeguard the public and prevent interference with work operations.

3.06 Use only standard or approved lighting in manholes. Locate switches, or batteries if used, and make all connections for electric lights outside of the manhole. Protect electric light bulbs from damage with approved guards.